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 Position: Support



Department of Kinesiology

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Dear Chair, Vice-Chair, and Members of the Committee:

The following written testimony is in **Support of HB 172** which would allow Maryland Athletic Trainers, who have completed the requirements, to perform dry needling as an evidence-based treatment option.

My name is Emily Hildebrand and I write to you today in support of this bill as it directly impacts my current role as an athletic training educator and director of the Athletic Training Programs at Towson University. I began my journey in healthcare in 2006 where I graduated with a Bachelor of Science in Athletic Training and successfully passed the Board of Certification, Inc. examination to earn the ATC credential. I then enrolled in a Master of Science in Health Education and continued in the workforce as an athletic trainer (AT) while also teaching. In 2014, I earned my Doctorate of Philosophy focused on research and coursework related to teaching, administration, and athletic training education. While pursuing this degree I was employed as an AT and taught coursework every semester.

I came to Towson University for employment in 2014 because I believe in a state school education and wanted to develop well rounded clinicians who would not only provide best patient care, but advocate for the health and wellness of all Marylanders. In my current role as director of the Master of Science in Athletic Training, it is my job to recruit students who will continue to uphold this philosophy as well as teach 15 credits in the program, pursue my own line of research, and work as a per diem AT. I write to you today with 16 years of experience as a health care provider and faculty member in higher education, that this bill will support not only our current licensed athletic trainers but also the future generation of clinicians who want to work in Maryland but have the same opportunities as other ATs in neighboring states.

The coursework completed by athletic trainers to obtain their degree makes them eligible to enroll in dry needling certification courses; the same courses taken by Physical Therapists and Chiropractors. The entry level degree for ATs has transitioned to the graduate level, and this professional degree expands upon prerequisite coursework to encompass specific accreditation requirements. This is similar to other healthcare curricula, which involves an educational expansion of prerequisite coursework and affords post-graduation options that include employment, residency, fellowship, and/or advanced content through a clinical doctorate.

Another similarity among healthcare profession curricula is the accreditation process. Accreditation standards are explicit to the professions' specific standard and scope of practice, but to maintain accreditation, educational programs must demonstrate compliance through annual reports. Accreditation standards begin with required prerequisite knowledge; no matter a healthcare provider's skill set or treatable population, foundational knowledge is necessary in order to provision organized medical care. At the core of providing care is employing evidence-based practice which is supported within the education curricula as well as post-graduation continuing education. Before acceptance into any professional graduate athletic training program nationwide, applicants must demonstrate successful completion of an undergraduate degree with prerequisite classes in:

- Biology
- Chemistry
- Physics
- Anatomy
- Physiology
- Psychology

In Maryland, acceptance into a professional graduate athletic training program also requires these pre-requisites:

- Nutrition
- Exercise Physiology
- Biomechanics

Once accepted into a professional graduate program, coursework surrounds orthopedic assessment and evaluation of the lower extremity, upper extremity, head, neck, and spine injuries, illnesses, and diseases. In order to determine musculoskeletal pathology, students must have sound knowledge and hands-on assessment skills of all involved anatomy – muscles, bones, nerves, ligaments, and other soft tissue structures. Athletic trainers must also be proficient in the treatment of injuries and conditions; therefore, coursework begins with phases of healing as it relates to various anatomical structures and theories on pain. Students then gain knowledge surrounding the rehabilitation process in order to recognize and improve patient dysfunction. Specific content related to physical agents and exercises are studied along with the development of overall therapeutic interventions. A critical piece students learn is that a patient's values are part of evidence-based practice. Meaning – when developing a treatment plan, the patient is involved in establishing their goals along with reviewing treatment options. The faculty who teach these courses at Towson University, do address the practice of dry needling through guest presentations and literature review. I can share, in the past 9 years I have taught the Therapeutic Modalities course at TU, and our

students are very interested and often complete research projects or critically appraise the literature on dry needling.

Athletic training programs must also include coursework on pathophysiology of medical conditions which involves the examination and assessment of human organs as they function within the bodily systems. Some examples include listening to heart and lung sounds, management of cardiovascular and respiratory conditions, identification of dermatological conditions, and assessment of neurological function. Coursework as it relates to pharmacology and diagnostic imaging is also taught as this relates to the evaluation, diagnosis, and management of injuries and conditions. Lastly, another major area of study for athletic trainers involves prevention, recognition, and management of acute, traumatic, and emergency conditions such as cardiac arrest or a pneumothorax.

In addition to didactic learning, students must also complete clinical education requirements under the direct supervision of a licensed athletic trainer and/or physician in a logical progression with increasingly complex and autonomous experiences. The clinical education component also includes clinical practice opportunities within a variety of patient populations. These populations must include:

- Patients throughout the lifespan (e.g., pediatric, adult)
- Patients of different sexes and socioeconomic statuses
- Patients participating at various levels of activity and athletic ability (e.g., recreation, competitive, team)
- Patients involved in non-sport activity (e.g., military, industrial, performing arts)

These clinical experiences are not observation in nature; meaning students must have hands-on opportunities with real patient interactions to be evaluated on their transfer of content knowledge learned in the classroom to contemporary clinical practice. Maintaining this accreditation standard also ensures students gain experience with patients who have a variety of health conditions that are commonly seen in athletic training practice.

Students graduate having engaged with patients who have been diagnosed with emergent, behavioral, musculoskeletal, neurological, endocrine, dermatological, cardiovascular, respiratory, gastrointestinal, genitourinary, otolaryngological, ophthalmological, dental, and environmental conditions. Students also graduate having practiced in the areas of prevention and wellness, urgent and emergent care, primary care, orthopedics, rehabilitation, behavioral health, pediatrics, and performance enhancement. To support these accreditation standards with data from students enrolled in Towson University's AT Program, our students are averaging around 1500 clinical hours and 2000 patient encounters at the time of graduation.

Athletic training education is guided by a rigorous accreditation process that as a program director, I am directly responsible for ensuring our curriculum meets these standards on an annual basis. This ensures the product of this education - our students - are competent to practice as an athletic trainer and obtain licensure. I am directly responsible for signing off on students' eligibility to sit for the national Board of Certification, Inc. examination. I take both of these responsibilities seriously as my name, my profession, and my employer are directly linked to any graduate who is employed as an athletic trainer. Therefore, I can confidently support that professional graduate athletic training programs are designed with purposeful rigor in both didactic and clinical coursework. With this curricular plan I can also confidently support any athletic trainer who seeks a dry needling certification; the same certification that our colleagues employed as physical therapists and chiropractors enroll in,

For these above aforementioned reasons, I respectfully request a **favorable vote on HB 172** to allow athletic trainers the ability to implement dry needling as a viable treatment option and effectively contribute to Maryland's organized medical care.

If you have further questions about athletic trainers having the educational qualifications to dry needle, I am available with the information provided below.

Respectfully,



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